REMARKS

Applicants respectfully request reconsideration of this application in view of the remarks and amendments contained herein. Claims 1-18 and 22 are amended and claim 21 is cancelled.

I. § 112 Rejections

Regarding the § 112 rejections of claims 1 and 12, the claims have been amended to provide proper antecedent basis and address the clarity issue noted by the Examiner.

Regarding the § 112 rejection of claim 7, Applicant's copy of the filed application indicates that claim 7 depends from claim 2, not claim 1. Should the Examiner's copy indicate claim 7 to be dependent on claim 1, please issue an Examiner's amendment to make this claim depend from claim 2.

Regarding the § 112 rejection of claim 21, the examiner asserted that dependent claim 21 is rejected because claim 21 bears no relation to step (d) of independent claim 18. This rejection should be withdrawn because applicant's specification shows that there is a relation because the steps of claim 21 are performed if the accelerated mode input is active (as recited in step (d) of claim 18). For example, the specification shows that the first step of claim 21 for "computing an accelerated roller state" is performed if the accelerated mode input is active, such as on page 7, lines 9-12:

If the accelerated mode input is active, then the roller state data is stored in the following registers: the value of the roller rotation direction is stored in the direction register 308; the value of a real time clock is stored in the time register 310; and the instantaneous differential amount of roller acceleration is stored in the speed register 312.

Thus the first step of claim 21 is one of the steps that is performed in the accelerated mode.

The specification shows that the other steps of claim 21 are also part of the steps performed when in the accelerated mode of claim 18's step (d). For example, the specification shows that the second step of claim 21 for "detecting a change in roller direction" is performed as part of the accelerated mode steps if the accelerated mode input is active. This is shown on page 4, lines 12-14: "However, *if the urgency roller acceleration detection mode is enabled*, then the device performs the following processing. Decision block 50 *examines whether a change in roll direction has occurred*." [(emphasis added)] Decision block 50 (discussed in this passage) is shown on Figure 3. Figure 3 also shows that other steps recited in claim 21 are performed after decision block 50 in response to the accelerated mode input being active: step 3 of claim 21 is depicted at decision block 52; and step 4 of claim 21 is depicted at decision block 54. After these steps, the roller position register is provided with a value that is determined based upon the accelerated roller state and the conditions that were detected in steps 2-4 in claim 21. (An example of this is discussed on page 7, lines 23-29.)

Because the steps of claim 21 are the steps that are performed if in the accelerated mode, the steps are collectively termed the "accelerated mode steps" (which is the term used in step (d) of claim 18). Because the specification shows that the steps of claim 21 are part of the accelerated mode steps, there is a definite relation between the steps of claim 21 and step (d) of claim 18 -- namely that the steps of claim 21 are the steps referred to in the "accelerated mode steps" recited in step (d) of claim 18. Because of this definite relation, the section 112 rejection is traversed and claim 21 should be allowed.

II. The Rejections over the Prior Art

Claims 1-20 were rejected over U.S. Pat. No. to Hauck. Independent claims 1 and 18 have been amended to include the limitations of claim 21, which was not rejected over the prior

art. For this reason, independent claims 1 and 18 should now be allowable over the prior art.

Claims 2-17, 19-20, and 22-26 are each dependent on claims 1 or 18, and therefore, for at least this reason, should also be allowable over the prior art.

III. Conclusion

It is believed that the application is now in condition for allowance. The Examiner is, therefore, respectfully requested to enter this Amendment and pass this case to issue.

Respectfully Submitted,

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